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EXAMINER

WAKS, JOSEPH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/802,044

Applicant(s)

WEITKAMP, ROLAND

Examiner

Joseph Waks

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on March 9, 2000. It is noted, however, that applicant has not filed a certified copy of the 100 11 393.1 application as required by 35 U.S.C. 119(b).

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sensor means for sensing values for quantification of the current loading and/or stress of the turbine and downstream the sensing means, and the electronic signal processing system as recited in claim 1, the feathered pitch plant as recited in claim 2, the stall or active stall plant as recited in claim 3, the sensor means including accelerations in the rotor blades and/or the nacelle and/or the tower as recited in claim 6, the measurements values monitored by the sensor means including on representative points of the components or deformation of elastic bearings as recited in claim 7, the sensor means including data of the wind field in or before the rotor plane as recited in claim 8, the actual spectra, online rainflow counting and the actual distribution functions as recited in claim 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In line 1, "comprises" and "means", and line 4, "said" are legal phraseology.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: sensor means, electronic processing system as recited in claim 1, the feathered pitch plant as recited in claim 2, the stall or active stall plant as recited in claim 3, the sensor means including accelerations in the rotor blades and/or the nacelle and/or the tower as recited in claim 6, the measurements values monitored by the sensor means including on representative points of the components or deformation of elastic bearings as recited in claim 7, the sensor means including data of the wind field in or before the rotor plane as recited in claim 8, the actual spectra, online rainflow counting and the actual distribution functions as recited in claim 10.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claims 1-13** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the sensor means and the electronic signal processing system are not identified in the drawings and not described in the specification. The claim is generally narrative in form and recites the desired functions without recitation in the claim of sufficient structure to warrant the presence of the functional language. The specification does not define the recited turbine current loading or stress nor the sensor means to provide this parameters. The specification neither defines what applicant considers as the optimum economical efficiency under current operating conditions nor the structural means to achieve such efficiency at these conditions.

In claim 2, the feathered pitch plant is not identified in the drawings and not described in the specification.

In claim 3, the stall or active stall plant are not identified in the drawings and not described in the specification.

In claim 6, the sensor means including accelerations in the rotor blades and/or the nacelle and/or the tower are not identified in the drawings and not described in the specification.

In claim 7, the measurements values monitored by the sensor means including on representative points of the components or deformation of elastic bearings are not identified in the drawings and not described in the specification.

In claim 8, the sensor means including data of the wind field in or before the rotor plane are not identified in the drawings and not described in the specification.

In claim 10, the actual spectra, online rainflow counting and the actual distribution functions are not identified in the drawings and not described in the specification.

In claim 11, the signal processing system used for computing from the actual spectra damages of the components is not described in the specification.

**Claims 1-13** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Re claims 1, 3, 6-8, 10, and 11, for the reasons described above one skilled in the art would not be able to make and/or use the invention.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 1-13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3, "the current loading or stress", lines 3-4, "the turbine", line 4, "the local and meteorological conditions", line 6, "the power reduction", line 6-7, "the optimum conditions", line 8, "the current operating conditions" and line 9, "the normal wind velocity" lack antecedent basis, lines 7-8, "optimum economical efficiency" should be --an optimum economical efficiency--.

In claim 2, line 2, "the feathered pitch" lacks antecedent basis, and "(pitch-type plant)" is indefinite because it is unclear whether the limitation in the parenthesis are part of the claimed

invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

In claim 5, line 2, “the values”, line 3, “the operating data”, “the group”, “the rotor speed”, lines 3-4, “the generator speed”, line 4, “the generator rotational moment”, lines 4-5, “the blade angle”, line 5, “the blade angle adjustment” and “the wind velocity”, and lines 5-6, “the wind direction” lack antecedent basis.

In claim 6, line 2, sensor means include accelerations” is indefinite since it does not identified acceleration of what is recited in the claim, “In” is a typo, and line 2, “the rotor blades, line 3 “the nacelle” and “the tower” lack antecedent basis.

In claim 7, lines 2-3, “stretching on representative points” does not make sense and is unclear, line 3, “the components” lacks antecedent basis, lines 3-4, “(e.g. the bade roots, rotor shaft, the nacelle, the base of the tower)” lack antecedent basis and is indefinite because it is unclear whether the limitation in the parenthesis are part of the claimed invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

In claim 8, line 2, “the wind field” and line 3, “the rotor plane” lack antecedent basis.

In claim 10, lines 1-2, “a signal processing system” should be –said signal processing system—since it seems to be the system already recited in claim 1, “(online rainflow counting)” is indefinite because it is unclear whether the limitation in the parenthesis are part of the claimed invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

In claim 11, lines 1-2, “a signal processing system” should be –said signal processing system—since it seems to be the system already recited in claim 1, and line 2, “the components”, lines 2-3, “the actual spectra” lack antecedent basis.

In claim 12, lines 1-2, “a signal processing system” should be –said signal processing system—since it seems to be the system already recited in claim 1 line 3, “the economy” and “the turbine” lack antecedent basis.

In claim 13, lines 1-2, “a signal processing system” should be –said signal processing system—since it seems to be the system already recited in claim 1, “(online Cost of Energy COE)” is indefinite because it is unclear whether the limitation in the parenthesis are part of the claimed invention or not, and the resulting claim does not clearly set forth the metes and bounds of the patent protection desired, “the evaluated externally supplied data” lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1, 5, and 7-13** are rejected under 35 U.S.C. 102(b) as being anticipated by **Morrill (US 4,155,252)**.

**Morrill** discloses sensor means 11 for sensing measurement values to be used for direct or indirect qualifications of turbine loading, an electronic signal processing system 16 to restrict the wind power plant operation at optimum economical efficiency under operating conditions at



the wind nominal velocity and the high wind velocities (Re column 3, lines 52-68, column 4 and column 5, lines 1-12).

11. **Claims 1, 4, 5, and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by **Doman et al. (US 4,695,73)**.

**Doman et al.** disclose sensor means 54 for sensing measurement values to be used for direct or indirect qualifications of turbine loading, an electronic signal processing system 16 to restrict the wind power plant operation at optimum economical efficiency under operating conditions at the wind nominal velocity and the high wind velocities wherein the wind power plant is designed for variable speed operation.

12. **Claims 1 and 6** are rejected under 35 U.S.C. 102(b) as being anticipated by **Kos et al. (US 4,420,692)**.

**Kos et al.** disclose sensor means 54 for sensing measurement values to be used for direct or indirect qualifications of turbine loading, an electronic signal processing system 16 to restrict the wind power plant operation at optimum economical efficiency under operating conditions at the wind nominal velocity and the high wind velocities wherein the wind power plant is designed for variable speed operation including acceleration means 1.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Morrill (US 4,155,252)** in view of **Harner et al. (US 4,160,170)**.

**Morrill** discloses the control system essentially as claimed. However, **Morrill** does not disclose the wind power plant designed for blade adjustment in the direction of the feathered pitch.

**Harner et al.** disclose the wind power plant designed for blade adjustment in the direction of the feathered pitch for the purpose of maintaining a constant generator speed for isolated power stations or constant generator output power or shaft torque when the generator is connected to the electrical grid.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the control system as taught by **Morrill** and to provide the wind power plant designed for blade adjustment in the direction of the feathered pitch as taught by **Harner et al.** for the purpose of maintaining a constant generator speed for isolated power stations or constant generator output power or shaft torque when the generator is connected to the electrical grid.

***Prior Art***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



JOSEPH WAKS  
PRIMARY PATENT EXAMINER  
TC-2800

JW  
April 25, 2002